

Fish Movement

The Great Barracuda



Great Barracuda Jacqui Stanley 2010

Activity Summary:

In this lesson, students will be introduced to one of the top predators of the ocean: the Great Barracuda. They will compare the habitats from the previous lesson: the ocean bottom, to the habitat of the Great Barracuda. They will make observations about how well each creature is suited to its different environment.

Students will discuss shape and color and line and create their own Great Barracudas.

Grade Level: 3 – 6

Time Frame: One class period

Materials:

Painting:

Paint and Paper

Crayons

Pencils

Learning Objectives:

Art

Students will be able to:

Art:

- Create artworks, using a variety of colors, forms and lines
- Identify colors, textures, forms, and subjects in the environment
- Identify connections between the visual arts and other disciplines in the curriculum

Science:

- Communicate observations and provide reasons for explanations
- Use form to explain function
- Use function to explain form

Vocabulary:

ART:

SHAPE – There are two types of shape:

- Geometric or man-made – examples are a window, a white board, a desk top

- Organic or Natural shapes – examples include leaves, trees, clouds, animals

BALANCE - a design principle concerned with the arrangement of one or more elements in a work of art so that they appear symmetrical (even) or asymmetrical (uneven) in design and proportion

COUNTER-SHADING - Counter shading is a common color pattern in animals in which the dorsal side (upper side) of the animal is darker than the ventral (lower) side. Such a color pattern provides camouflage for the animal when viewed from above, below, and even from the side

SCIENCE:

PREDATOR – Predators are those animals that live by preying on other organisms for food.

DORSAL FINS – the top fin on a fish. Usually where the backbone is located.

PELAGIC – marine animals that live in the water column. They do not live on the sea bottom.

Preparation

Images of the Great Barracuda

Projected image of Great Barracuda painting – see start of lesson plan

Procedure

- 1) Look at the image at the beginning of this lesson plan. It is not complete – the far image of the Great Barracuda is complete and shows how to complete the Great Barracuda.
- 2) Discuss how the far image of the Great Barracuda will not be as bright or as colorful as the closer image because we lose light the further things are away from us.
- 3) Choose the media for the painting – paint or crayons or colored pencils.
- 4) Just like we do in writing, illustrating an idea or story requires a process. Ask students to make a rough sketch of where they will place their fish.
- 5) Discuss the shape of the Great Barracuda. It is long and important for a predator?
- 6) Draw the shape and color or paint the body of the Great Barracuda. It is a silvery color. Why do you think the barracuda is this color? It is lighter in color underneath the fish, and darker on the top. This is counter-shading – discuss why this type of camouflage is important for a predator. The Great White Shark is an excellent example of use of counter shading.
- 7) The fish also needs to move very quickly, so it will need a big, powerful tail. Draw the tail.
- 8) Think about the creatures we have looked at already. Think about where they live – on the ocean bottom. This creature lives in the water column. It is pelagic. What is the difference between a creature that stays still on the ocean floor, and a creature that needs to move very quickly through the water.
- 9) Draw or paint the fins of the Great Barracuda. There are two dorsal fins on the top of the body and two fins below.
- 10) Now we can get to the mouth. It turns down at the corner and the Great Barracuda has a huge set of powerful teeth.

- 11) The great barracuda hovers around the reef with its mouth half open, displaying all of its pointy sharp teeth. The wide, powerful jaws can easily bite through large fish, such as a parrotfish. Reaching up to lengths of 6.5 feet (2 m) and weighing 110 pounds (50 kg), the great barracuda is the largest of all the barracudas. There have been reports that this fish has reached lengths of 10 feet (2.5 m). Although it is so big, it's body shape helps them swim very swiftly and there have been reports that this fish can chase after its prey at speeds of 40 feet per second!
think about where you will place your fish.

Education Standards

National Education Standards	<p>ART : <u>NA-VA.K-4.1</u> UNDERSTANDING AND APPLYING MEDIA, TECHNIQUES, AND PROCESSES</p> <p><u>NA-VA.K-4.2</u> USING KNOWLEDGE OF STRUCTURES AND FUNCTIONS</p> <p>SCIENCE: E.U.5 Form and function a. Form—Form is the shape of an object. The goal is for students to use form to explain function. b. Function—Function is the normal or characteristic action of anything. The goal is for students to use function to explain form.</p> <p>ENGLISH/LANGUAGE ARTS</p>
Ocean Literacy Principles	The Ocean supports a great diversity of life and ecosystems

Evaluation

Students create their version of the Great Barracuda and clearly show that they understand that this is a pelagic fish and that it has a distinctive shape and color.

Extension

Students research the Great Barracuda on line and draw or paint in some marine animals that the Great Barracuda considers it's prey.

Resources

<http://www.flmnh.ufl.edu/fish/gallery/descript/greatbarracuda/greatbarracuda.html>

This site is a good source of information about the Great Barracuda. It has information about the habitat, distinctive features, food habits as well as excellent images of the Great Barracuda.

Acknowledgements:

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This lesson was developed for NOAA National Marine Sanctuary Programs by Jacqui Stanley from Young Audiences Arts for Learning.